

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of:

Applicant : Li-Ying Yang  
Appln. No. : 10/798,595  
Filed : March 11, 2004  
Title : MECHANICALLY EMBOSSED SINGLE PLY ROOFING  
MEMBRANE FOR ANTI-ROLL BLOCKING  
Docket No. : FDN-2795  
Art Unit : 3635  
Examiner : Basil S. Katcheves

Filed Via: EFS-Web

Sir:

**REPLY BRIEF**

This paper is filed in response to the Examiner's Answer dated July 20, 2009.

Status of Claims begins on page 2 of this paper.

Grounds of Rejection to be Reviewed on Appeal begins on page 3 of this paper.

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Status of Claims

Claims 1-31 remain in this application. Claims 2-4, 6, 7, 19-21, 23 and 24 have been withdrawn. Claims 1, 5, 8-18, 22, and 25-31 stand rejected. The appealed claims are claims 1, 5, 8-18, 22, and 25-31.

Grounds of Rejection to be Reviewed on Appeal

(A) Claims 1, 8, 10, 12, 13, 15 and 25 stand rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,544,909.

(B) Claims 1, 5, 8-12, 14-18, 25, 26, 28, 30 and 31 are rejected under 35 U.S.C. §103(a) as being unpatentable over Khan et al. (U.S. Patent No. 6,134,856).

(C) Claim 13 is rejected under 35 U.S.C. §103(a) as being unpatentable over Khan et al. in view of Robinson (U.S. Patent No. 4,695,501).

(D) Claims 27 and 29 are rejected under 35 U.S.C. §103(a) as being unpatentable over Khan et al. in view of Vanderzee (U.S. Patent No. 4,715,915).

### Argument

The claimed invention on appeal relates to a single-ply roofing membrane having a top layer and a bottom layer wherein the bottom layer is embossed forming an embossment of alternating ridges and valleys over a majority of the surface area of the bottom layer. The embossed bottom layer reduces the tendency of the membrane to stick during unwinding and subsequent handling.

The claims on appeal stand rejected over Khan et al. either alone or in view of various secondary references. In the Examiner's answer, the Examiner acknowledges that "Khan does not particularly disclose the ridges and valleys over the majority of the bottom layer." Examiner's Answer, pg. 4. The Examiner argues that it would have been obvious to increase the area of the embossment over a majority of the bottom layer based on a *per se* rule from *St. Regis Paper Co. v. Bemis Company* that "mere duplication of the essential working parts of a device involves only routine skill in the art." Appellants respectfully submit that the Examiner's reliance on the *per se* rule from *St. Regis* paper fails to meet the burden of establishing a *prima facie* case of obviousness based on a "fact intensive inquiry" analyzing the claims in view of the prior art. As the Federal Circuit has made clear, the "reliance on *per se* rules of obviousness is legally incorrect and must cease." *In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995). *St. Regis Paper* involved the combination of one known structure with a bag structure containing multiple layers. The facts in the present case are significantly different than those encountered in the *St. Regis Paper* case, and it is improper for the Examiner to apply a *per se* rule without regard for the particular nature of the claimed subject matter. The claims on appeal are directed to an invention that is not disclosed in the prior art and provides benefits that are not disclosed nor suggested in the prior art. The Examiner has provided no evidence or convincing line of reasoning as to why one of ordinary skill in the art would have modified the structure in the prior art to arrive at the present invention.

In response to appellant's arguments that Khan fails to disclose or suggest the claimed structure, the Examiner relies on a statement in Khan that a greater overlap provides greater adhesion. The Examiner then extends this to conclude that it would have been an obvious design

choice to increase the overlap area to a majority of the bottom layer of the roofing material. Appellants respectfully disagree with the Examiner's position. Appellants note that the language relied on by the Examiner in Khan must be viewed in context with the rest of the disclosure. In the same paragraph, Khan refers to "[e]ach selvage edge can have a width of about 2 – 10, preferably 3 – 9 and most preferably 4 – 8 inches. Greater overlap tends to provide greater adhesion but at an added material cost per unit area of coverage." Khan et al., col. 3, ll. 43-47. Khan also discloses that the membranes typically range in width from about 3 to 4 feet. So even combining the widest width for the selvage edge at 10 inches and the narrowest membrane width of 3 feet, the total embossment area would still be significantly less than a majority of the bottom surface of the membrane. It should also be noted that in determining the embossed area from the selvage edge Khan only discloses one edge that includes embossment of the bottom layer of the membrane. The opposite edge of the membrane is embossed on the top surface and not the bottom.

One of ordinary skill in the art would never extend the embossment on the bottom layer of the membrane disclosed in Khan to cover a majority of the surface area of the bottom layer based on any disclosure in Khan. In fact, Khan tends to suggest that even for the ranges of values disclosed, the greater overlap may be undesirable because of the additional material costs. It would not be practical to have an overlap area that would account for a majority of the surface area on the bottom layer of the membrane because of the excessive cost in doing so. The Examiner's reason based on the need for increased adhesion because of strong winds and rains is mere conjecture and fails to provide the necessary evidence or line of reasoning to support the legal conclusion of obviousness. Therefore, appellants respectfully submit that the Examiner's reliance on the *per se* rule from St. Regis Paper is improper, and the purported motivation for modifying the Khan reference is insufficient to support a *prima facie* case of obviousness. Accordingly, appellants respectfully request that the rejection be reversed on appeal.

We hereby authorize the Commissioner under 37 C.F.R. § 1.136(a)(3) to treat any paper that is filed in this application which requires an extension of time as incorporating a request for such an extension. The Commissioner is authorized to charge any additional fees required or to credit any overpayment to Deposit Account No. 20-0809.

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Respectfully submitted,

September 21, 2009

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